

## The HIRV Committee

The following are some of the representatives who may enhance the effectiveness of the HIRV committee:

- disaster manager
- community planner
- local resident
- business representative
- industry representative
- land developer
- environmentalist
- engineer
- insurer
- utilities representative
- hazards expert
- representative from the third sector<sup>1</sup>
- media representative
- public relations officer
- elected official

The HIRV committee needs to include interested parties, experts, and decision makers. Given the focus on sustainable hazard mitigation, and the objective of integrating disaster management and community planning, two key committee members would be the disaster manager and the community planner. The disaster manager brings expertise vis-à-vis disasters, and the community planner, who benefits by gaining an awareness of where hazards, risks, and vulnerabilities are located, brings the ability to make informed decisions regarding future land use.

Potentially, all of a community's residents have an interest in the findings of a comprehensive HRV analysis, yet clearly everyone cannot participate on an advisory committee and not every interested group can sit at the table. Thomas (1995, 122) suggests that, while some managers attempt to deal with this problem by appointing an "average citizen" with no particular bias or interest, the evidence indicates that the leaders of established organizations make the best committee members. Not only are these leaders more likely to be accepted as legitimate representatives, but they are also "most likely to display the type of broad orientation conducive to effective decision making" (Cole, cited in Thomas 1995, 122). Nevertheless, in the area of disaster management, appointing an "average citizen," especially a long-time resident, is important. Wynne (1992) argues that, in many cases, it is local residents rather than scientists and experts who are truly knowledgeable about the local environment. This was recognized in the EPC model for HRV analysis and was identified in a number of situations that have been summarized by Kaspersen (1992). Furthermore, the National Research Council (1996) points out that indigenous-risk knowledge is a very important factor in assessing hazards and risks.

Who are the key stakeholders? The HIRV committee's findings will potentially affect decisions regarding land-use policies; thus it can be expected that the business community and developers would be interested parties. A number of researchers (Kaufman and Jacobs 1996; Aspen Global Institute 1996) emphasize a strong need for the private business community to participate in developing strategic planning proponents. Burby (1998) advocates for the participation of representatives from businesses, land development agencies, and real estate agencies. A leader from the general business community (e.g., a president of the local chamber of commerce) and one from a private land developers organization could make valuable contributions to the HIRV committee. However, it is important to choose these two representatives carefully and to ensure that they do not "fall into [the] narrow pursuit of self-interest" (Cole, cited in Thomas 1995, 122).

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<sup>1</sup> Paterson (1998, 204) defines the third sector as the nonprofit, nongovernmental, independent, or voluntary sector.

Given the high concern with the environment and with potential chemical hazards, it is not surprising that several researchers suggest that representatives of industry should participate on committees concerned with potentially hazardous materials (United Nations Environment Programme Industry and Environment Program Activity Centre 1992; Thomas 1995; Burton 1996). The NOAA approach to HRV analysis also recognized the importance of involving industry. Several recent initiatives in Canada, such as the CAP programs,<sup>2</sup> have encouraged members of the Canadian Chemical Producers Association and members of the Responsible Care Program to initiate contact with local residents and disaster managers. Following this, if a community supports heavy industry, then one of its representatives should be invited to sit on the HIRV committee.

Almost at the other end of the spectrum are representatives from environmentalist organizations. Developing policies that deal with hazards involves “creat[ing] constituencies that advocate attention to issues of sustainability and hazard mitigation” (May 1997 36). Policy makers and planners have found that agencies that advocate environmental sustainability support hazard reduction (Paterson 1998). Indeed, hazard reduction and environmental protection are mutually reinforcing activities that, taken together, tend to promote sustainable communities (Berke and Beatley, Hamilton, cited in Paterson 1998). While environmentalists are not newcomers to the field of disaster management, in the past their roles have been limited (Paterson 1998). These people would add to the effectiveness and credibility of the HIRV committee. Parker (1992a) argues that, if one is to prevail upon local politicians to assist in mobilizing public opinion, then political considerations must be taken into account. Obviously, most politicians are hesitant to make decisions that may be unpopular and hence threaten their survival. Certainly, in North America most communities have active members of recognized environmental organizations, and a representative of one of these should be on the HIRV committee.

Paterson (1998) argues that a representative from scientific, technical, and professional associations should be involved in implementing mitigation strategies – a view supported by numerous researchers (Alesch and Petak, Berke and Beatley, Dynes, and May, cited in Paterson 1998, 220). A member of the Professional Engineers Association might well fill this role on the HIRV committee.

Faced with rising costs following a disaster, insurers have devoted considerable resources that are conducive to mitigation, and their role in hazard mitigation, specifically, has been recognized for some time (Burton 1994; Disaster Preparedness Resources Centre 1999). In many cases, insurance and re-insurance agencies have completed extensive work on the community impact of various hazards (e.g., Insurance Bureau of Canada 1994). Consequently, a representative from one of these agencies would make a valuable contribution to the HIRV committee.

Another group of stakeholders that has often been involved in calculating the community impact of disasters is made up of utility organizations. Electric power, water, sewerage, natural gas, telecommunication lines, and so on are all critical community lifelines. As have insurers, utility companies have long been recognized as essential partners in disaster preparedness and response (Disaster Preparedness Centre 1999; Institute for Environmental Studies 1997). A representative willing to represent local utility companies could also contribute to the HIRV committee by sharing not only her/his research data, but also information regarding the vulnerability of lifelines. Given the importance of community lifelines, it is interesting that the SMUG approach to HRV analysis was the only one that specifically singled out the need to involve utility companies in the HRV process.

It is just as important to have an industrial-sector expert on the HIRV committee as it is to have a scientist or a natural hazards expert. This person can assist in evaluating data and ensuring that scientific data are adequately “translated” for the layperson. It would be impossible to have all of the relevant experts sitting around the committee table, so it is suggested that experts be invited, as ad hoc members, to contribute information whenever appropriate. A side benefit of having a number of outside experts join the

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<sup>2</sup> Community Advisory Panels (CAP) are a Canadian initiative, developed under the Responsible Care Program of the Canadian Chemical Producers Association. These panels provide a forum for dealing with issues that may arise when a community is located in close proximity to large chemical manufacturing and oil refining industries (Canadian Chemical Producers Association 1999).

committee on an ad hoc basis is that this is one way of revitalizing an organization that may have become stagnant (Ivancevich and Matteson 1987). Given that the HIRV process is ongoing, it is clearly important to maintain the vitality of the HIRV committee.

There are numerous new tools that have been, and are being, developed to assist in determining the potential risks of, and vulnerabilities to, specific hazards.<sup>3</sup> Experts are strongly encouraged to use these tools where sufficient community data and resources exist. In many cases, communities will find that, while national data exists, local data does not. Most of the extant models for HRV analysis include experts but fail to acknowledge the need for others to take part in the process.

One of the stated objectives of a successful HRV process is to empower vulnerable populations. One way to represent these interests is to include a member of the third sector<sup>4</sup> on the HIRV committee. In the long run, social planners will benefit by gaining new perspectives on how, in times of disaster, social inequities result in increased vulnerability. Paterson (1998, 205) sees the role of the third sector as : (1) building local commitment to change by acting as policy advocates and collaborative problem solvers; (2) coordinating the activities of citizens and government; and (3) building local capacity for change by acting as delivering services, offering educational resources, and functioning as financial supporters of local efforts. The community benefits by having a mechanism to bring risks and vulnerabilities to a public forum, thus enabling people to work together to build a healthier and safer community.

Still, even with a representative from the third sector, the HIRV committee has not yet ensured that it will involve and communicate with the community-at-large. “The foundation of any program to prevent and resolve public controversy must be an informed public” (Connor, cited in Thomas 1995, 141). In all phases of a disaster, the success of a disaster management program will depend upon getting specific information to citizens (Kasperson, cited in Burkhart 1991; Scanlon 1993). Burkhart (1991) stresses that it is as important to provide accurate information before a disaster as it is to do so during and after a disaster. The media are essential to any warning system (Scanlon 1993; Burkhart 1991; Drabek 1986), and one of the best ways of ensuring that the media will be able to fill their role during the alert and warning phases of a disaster is to make sure that they are well-informed as to potential hazards and that they develop effective warning messages (Scanlon 1993).

The media are clearly important to the disaster management system (Burkhart 1991): the difficulty is in getting them to take an active role.<sup>5</sup> Part of the problem is the reluctance of local governments to directly involve the media in public processes. Paradoxically, the media are perceived as being both friend and foe (Auf der Heide 1989). However, they are expected to serve the “public interest,” which means, in practice, “that mass media are the same as any other business or service industry, but carry out some essential tasks for the wider benefit of society, especially in cultural and political life” (McQuail 1996, 68). In addition to the media playing a watchdog role, they also “facilitat[e] self-expression, promot[e] public rationality and enabl[e] collective self-determination” (Curran 1996, 97).

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<sup>3</sup> HAZUS – Earthquake Loss Estimation Model (FEMA 2000), RADIUS (IDNDR 1999), NHEMATIS (Nobility EM 2000)

<sup>4</sup> Paterson (1998, 204) defines the third sector as the nonprofit, nongovernmental, independent, or voluntary sector.

<sup>5</sup> Despite a federal mandate in the United States to include media members on all local emergency planning committees dealing with chemical hazards, few of the committees have had any active media participation (Hadden, cited in Burkhart 1991).

The local media are also repositories of large collections of historical data relating to hazards and disasters. Thus, they can play a true participant role in terms of contributing to the information being collected through the HIRV approach. There are five basic forms of mass communication: oral, literate, electronic oral, electronic audio-visual, and electronic textual-numeric<sup>6</sup> (Lorimer 1994). While oral communication involves face-to-face interaction, literate communication is only indirectly social and leads to “the development of general and specific explanatory concepts that form into a system or general theory” (Lorimer 1994, 13).

Burkhart’s (1991) research indicates that newspapers and television are the leading channels for passing on disaster preparedness literature and that they are the media of choice for the general public. Thus it would be a good idea to include a newspaper reporter on the HIRV committee. However, use of local newspapers results in “the practice and product of providing information and leisure entertainment to large, often unknown, and increasingly fragmenting audiences....from all social strata and demographic groups but who are homogeneous in their behaviour of choosing to attend to an information source” (Lorimer 1994, 25).

But how do we communicate, and involve, those who do not have access to local newspapers? One of the difficulties in any public participation process is that

no matter what the circumstances, many who are eligible to participate do not, and those who do participate are seldom a cross section of all who were eligible. In particular, participants usually have higher socio-economic status — better education and higher incomes — than non-participants. (Thomas 1995, 25)

Thus, the need to involve a public relations officer. Spicer (1997,22) argues that “the ‘best’ public relations encourage and enhance consensus and community.” He believes that the foremost function of public relations is to build and maintain healthy relationships by maintaining a dialogue between people and organizations, by encouraging discussion of all views, and by helping to communicate opinions. Public relations officers are all too often viewed as “product publicists” rather than as people who can provide a technical support function; that is, as people who can effectively reach target audiences (Spicer 1997). One of the challenges for the public relations officer is to bring the findings of the HIRV committee to the most vulnerable populations. This may be done through neighbourhood displays in malls, community recreation centres, grocery stores, information booths at local community events, local newsletters, and so on. Although public officials may believe that the public cannot understand technicalities, the evidence is otherwise (Scanlon 1993, 91). However, information must be presented in a form that the public can understand.

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<sup>6</sup> This refers to the processing of information by computers and telecommunications.

Government projects that disseminate historical accounts of community disasters, case studies of near misses that could have been disastrous, or even well-targeted community hazard mapping programs disseminated to the most at-risk local groups help create the prerequisite awareness needed for group mobilization. (Paterson 1998, 210)

Benefit is derived not just from disseminating information to the general public, but also from receiving the public's feedback. The initiation of two-way communication will help to legitimize the HIRV committee. As Dowling and Pfeffer (cited in Hardy 1987, 103) point out: "To be able to operate without risk of intervention an organization must establish its legitimacy in the eyes of the external institutions that affect it, as well as its own members."

Finally we come to the last member of the HIRV committee: the elected official. It is important for an elected official – an experienced decision maker – to be on this committee. Although many researchers have discussed the need for elected officials to be involved in pre-disaster activities, Petak (1985, 5) states it most forcibly:

It is important to note that current decision-making approaches tend to put a great deal of power in the hands of technical experts and professional administrators who are not directly accountable to the public. Elected officials must, therefore, assert their responsibility as representatives of the public and actively engage in the process of exercising value judgments which will lead to agenda setting, resource allocations, staffing, training, and, ultimately the effective implementation of a program designed to mitigate against, prepare for, respond to, and recover from disasters when and if they should occur.

Given the importance of involving local politicians in pre-disaster activities, it is interesting that only one of the extant approaches to HRV analysis, the OSLO approach, does so.

Organizational behaviour literature, which has many contributing disciplines (e.g., psychology, sociology, social psychology, anthropology, and political science), offers some suggestions as to what qualities the "ideal" committee or work-group member should embody (Robbins 1998). Individual demographics suggest that there are a number of factors that bear some relationship to task performance. These are: (1) age, (2) status, (3) gender, (4) ethnicity, and (5) personality traits. Although it is extremely unlikely that any community-based HIRV committee would be able to recruit members by pre-testing suitable candidates for personality traits, recruiting with an eye to factors 1 through 4 may well ensure an effective working group.

1. *Age*: Although there is a widespread belief that job performance declines with increasing age, most of the evidence contradicts this (Robbins 1998, 43); however, since people of a certain age share the same general major life experiences (e.g., the Second World War, the Vietnam War), they tend to share some of the same values (133). In the interests of diversity, it would be beneficial to ensure that participants come from different age cohorts.
2. *Status*: This is a socially defined rank given to group members by other group members (Robbins 1998). Formal status includes such things as titles, pay and benefits, and relationships. "However great their actual power, higher-ranking people tend to be seen by lower-ranking members as possessing more power than they experience themselves as being able to use effectively" (Alderfer 1987, 207). The difficulty with status is that, in many cases, it exists because of the power of the individual. There are five basic sources of power: (1) the ability to confer reward upon the influencee, (2) the ability to mete out punishment, (3) legitimate power by virtue of position, (4) power based on expertise, and (5) power based on the influencee's desire to identify with or imitate the influencer (Stoner et al. 1995). When there is an imbalance of power, subordinates may feel inhibited and unable to express their opinions. Thus, in choosing members of the HIRV committee, one must address the status and power of the individuals being considered.
3. *Gender*: Differences between men and women in organizations reflect the effects of unequal influence, stereotypical perceptions, and sexuality (Alderfer 1987). "Evidence suggests that there are

few, if any, important differences between men and women that will affect their job performance” (Robbins 1998, 44). However, there *is* evidence that women are more comfortable with a democratic leadership style, while men are more comfortable with a directive style. Women tend to encourage participation, share power and information, and attempt to enhance followers’ self-worth ... Men, on the other hand, are more likely to use a directive command-control-style. They rely on the formal authority of their position for their influence base. (Robbins 1998, 378)

While this must be considered a very broad generalization, it does suggest that gender should be taken into account and that some balance between male and female committee members would be of benefit.

4. *Ethnic differences:* Ethnic and cultural differences have been found to be closely tied to historical relationships between the ethnic groups in any given region (Alderfer 1987). Cultural diversity, as a consequence of local historical relationships, should be taken in account when considering appointments to the HIRV committee.
5. *Personality Traits:* Although not particularly useful with regard to choosing members of the HIRV committee, these are worthy of mention, if only to assist in assessing the character of individuals once the committee is in operation. According to Robbins (1998, 1993), there are a number of personality traits that can influence organizational behaviour:
  - *Locus of Control:* people who believe they are masters of their destiny tend to be more dissatisfied with their work than do others;
  - *Achievement Orientation:* people with a high need to achieve need tasks that carry an intermediate amount of difficulty;
  - *Authoritarianism:* high-authoritarianism personalities are successful in highly structured tasks but not in tasks that require sensitivity to the feelings of others;
  - *Machiavellianism:* Machiavellian personalities do well when jobs require bargaining and offer substantial rewards for winning;
  - *Self-Esteem:* there is evidence that persons with high self-esteem believe that they possess the ability they need in order to succeed and are satisfied with their jobs;
  - *Self-Monitoring:* early research suggests that high self-monitors pay close attention to the behaviour of others and are more capable of conforming than are low self-monitors; and
- *Risk Taking:* high risk-takers do well when jobs require that decisions be made quickly; they do less well when discussion and deliberation is part of the process.

Once the members of the HIRV committee have been selected, the remaining issue concerns who should chair the committee. Personalities, management styles, organizational structures, and so on all play a role in determining who would be the best chair for the HIRV committee. There may be a tendency to appoint the elected official as the chair; however, given some of the factors raised in the previous discussion regarding the role of status and power, it is likely more preferable, and definitely more equitable, to have a rotating chair.